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SELECTED EASTERN EUROPE SOCIOLOGICAL TRANSIATIONS

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SELECTED EASTERN EUROPE SOCIOLOGICAL TRANSLATIONS

This series of reports contains full translations and/or extensive extracts of selected articles of sociological significance appearing in publications of Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania and Yugoslavia.

Since the inclusion of translations from any given area or source will necessarily depend upon their availability at the time of publication, no single report of this series should be considered as necessarily including all categories of information to be presented in this series.

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Rumania

RUMANIAN REVIEW SEEKS TO PROVE WORTHLESSNESS OF RELIGION

[Following is a translation of the article "What Good is Religion?" by Constanta Alexe-Oprescu in the Rumanian newspaper Viata Studenteasca (Student Life), Vol. 5, No. 1-2, January 1960, page 7; and No. 3, 10 February 1960, page 7.]

Religion is a form of social conscience, a false, illusory method of reflecting the realities surrounding man's conscience, a misrepresented image of both human relations and the relation between man and nature. ". . . Any religion," wrote Engels, "is no more than the fantastic mirroring in men's minds of the exterior forces which dominate their daily life, a reflection in which the worldly forces take the form of 'supra-worldly' forces." Under the action of the natural and social exterior forces which dominate mankind and which are unexplainable, man divided the real world into two, creating a supernatural realm parallel to and above this world. Religion evolved in the primitive community as a result of underdeveloped forces of production and the domination of primitive man by the natural forces surrounding him.

Together with the development of private ownership--and of antagonistic classes--religion became an ideological weapon in the service of the dominating exploiting classes, an instrument destined to defend the privileged positions of those who possessed the means of production and those who held political power. Religion seeks to explain to the exploited masses that the order of all things reflects the will of some "all-powerful spirit" which determined once and for all that those without property should labor for the fortunate ones, that the weak should be suppressed by the powerful. Religion teaches mankind that revolt is useless and that only prayers can persuade the divine power to ease the fate of the humble and assure a better, happier life, not on this earth but in the other world. Religion, according to Lenin's definition, is "one of the forms of spiritual oppression which everywhere presses down on the masses of people crushed by their eternal labor for others and by their needs and lack of unity." This oppression is exercised in all societies based on exploitation; it is dealt by all the dominating classes which have found in their religion and their ministers a devoted ally.

Supporting the Marxist concept of religion is the principle concerning religion's support of the class system, and its antiscientific character, and its reactionary role. Religion has always represented a braking force in the path of social progress. Religion undermines man's belief in his own power, in his capacity for understanding and practical action; it weakens man's will to fight against the forces of nature and suppression. In expressing this idea Marx emphasized that "religion is the opium of the masses," and Lenin points out that this

thesis is the cornerstone of the entire Marxist concept of the problem of religion. Religion has shackled mankind with the chains of ignorance and suppression. Therefore in the past and present it has been and still is hostile to the masses, the working people. In serving the interests of the dominating exploiting classes, religion was fostered, maintained, and developed in all systems based on class antagonism: slavery, feudalism, and capitalism.

In a society divided into classes, religion primarily reflects the powerlessness of man against the social relations based on exploitation. Because of this situation, even when men achieve great victories in their struggle with nature, as is happening in the modern era, religious beliefs, naive in content, continue to be maintained rather than disappear in capitalism. And in capitalist society the principal causes of religion are social. "The social oppression of the working masses and their apparent complete powerlessness in the face of the blind forces of capitalism," wrote Lenin, "daily and hourly invoke in the working man sufferings a thousand times more dreadful and tortures a thousand times more cruel than the various events which arise in the course of history, such as wars, eqrthquakes, etc. This oppression is the deepest root of religion in our times."

In the capitalist system class suppression takes extremely violent forms. In their pursuit of high profits, the capitalists intensify the exploitation of the working class, extend the work day and intensify the work pace, reduce salaries, and condemn the workers to a life full of misery and want. Just as primitive man was dominated by his fear of natural forces, which he did not understand and over which he had no control, so also is the worker in capitalist society dominated by fear of unemployment, economic crises, wars, etc.

Religion endeavors to invoke in men the conviction that private ownership is of "divine origin" and therefore cannot be expropriated. Jacques Maritain, one of the leaders of neo-Thomism, a reactionary clerical philosophy, openly affirms that private ownership "expands the human personality" and "guarantees" the liberty of man. The existence of social classes and exploiting classes is proclaimed by the church to be a direct "eternal" phenomenon instituted by God, and any attempt to change the social system is considered to be a cardinal sin.

However, since it is not possible to conceal the existence of the misery of the working masses, religious ideology sometimes resorts to hypocritical criticism of capitalism. The profound and incurable weaknesses of contemporary bourgeois society are presented as "small isolated imperfections" of capitalism which must be "altered." The religious interpretation of these "alterations" is clearly illustrated in demagogic sermons concerning "collaboration between classes," "industrial peace," the need for renouncing the struggle of the working class against the imperialist bourgoisie, etc.

Through its moral prescriptions, religion entices man to "love thy neighbor," which under the conditions of an exploiting society literally signifies an inducement to social peace between the exploiters and the exploited, an inducement to humiliation, forbearance, and submission to the power of the capitalists. In showing what is behind these hypocritical prescriptions of religious morality, Maxim Gorky wrote with irony: ". . . love the capitalists because they consume your powers, love them because they quietly destroy the wealths of your soil, love these men who expend your metal for arms with which they will slaughter you, love the wretches by whose will your children die of hunger, love the capitalist who destroys you in order to be relaxed and well fed, because his church retains you in the darkness of ignorance."

The reactionary class character of religion is most evident from the strong connections which exist between religion and politics. In the imperialist state of capitalism these ties are particularly numerous and complex, appearing in both ideological and political forms by means of the reciprocal support extended between the bourgeois parties and church organizations. It is known, for example, that the most reactionary doctrines and current policies of the bourgeoisie of our day are those which are most devoted to religious mysticism. It is no secret that the most licentious political ideologies and retrograde philosophies of bourgeois-landowner Rumania, complete with autochthonous fascism, raised the greatest tumult over the "credence" and so-called "inborn orthodoxism" of the Rumanian race. Xenophobia and racism fraternized with religious fanatism; "Rumanianism" assumed the mystical definition in obscurantist philosophy of a blessing, as a fatalist attitude toward life, a resignation to fate.

In the capitalist countries, religion and its institutions are completely subordinated to the bourgeoisie. Both the religious propaganda and the administrative organs of the various religious organizations depend financially on the capitalists. Monopolists allocated large sums of money to these religious organizations: in 1955 the newspaper New York Times published the statement that the American monopolist Rockefeller had donated $20,000,000 to Protestant churches in the U.S.A.

In the capitalist countries the churches themselves possess great financial reserves. The capital at the disposal of the Vatican amounts to many billions of dollars. The representatives of the Vatican are shareholders in the various corporations and trusts in the principal capitalist countries, thereby obtaining fabulous profits. This proves the economic basis for the alliance of the church with the big capitalists who bind together even more the church and the monopolies, making it the most vehement defender of the capitalist world.

Today the Vatican supports the most reactionary and aggressive imperialist circles and upholds their warlike propaganda. Pope Pius XII gave his blessing to the formation of aggressive militant blocs, designating the North Atlantic bloc as "a mighty army against atheism and the enemies of God." It is known that Pope Pius' hatred for Communism made him share the ideas of the fascist leaders of Italy, Germany, Spain, and other countries. It is significant in December 1939, that only several months after the Second World War broke out, the Pope, in speaking before the College of Cardinals, addressed the following appeal to the governments of the bourgeois countries participating in the anti-Hitler coalition: "Let us terminate this fratricidal war and unite our forces in the struggle against the common enemy--atheism" (viz., the U.S.S.R.--author's note). This was pursued continuously after the Second World War in the Vatican's active participation in maintaining the "Cold War".

The "new orientation" in religious policy initiated by Pope John XXIII, successor to Pius XII--an orientation which the Western press heralds as being more "progressive" and consisting of nonintervention in "world" problems--has subsequently proved to be just as reactionary. John XXIII had hardly entered his new post when he began attacking the "materialist and atheist camp," as well as the countries which are struggling for national independence. Loyally following the anti Communist line of Pius XII, in April 1959 John XXIII gave a new example of "new orientation" of the Catholic Church by publishing the inquisitional decree which under the threat of excommunication forbids Catholics to support the Communist Party, as well as those organizations and political parties which, even though Christian, might uphold in one way or another the political actions of the Communists.

In imperialism the church plays a political role which is becoming more and more pronounced. The establishment of bourgeois political parties on religious basis fully illustrates this fact. Designed to camouflage the reactionary policy of the imperialist bourgeoisie by means of the religious mask of "neutrality" and "indifference to politics," these parties have made their mark in history with many social crimes, culminating in some countries with the open support of fascism. After the Second World War, the Catholic political parties, closely tied to the imperialist monopolies by the Catholic Church under the leadership of the Vatican, became the government parties in many European capitalist countries (Italy, Austria, France, West Germany, etc.).

In West Germany the church is engaged in extensive political activity supporting the revengeful militarist policy. The Christian-Democrat Party of Federal Germany--led by Adenauer--is the promoter of the aggressive, revengeful policy of the imperialist magnates, the greatest enemy of the reunification of Germany on democratic bases, adept at presenting "solutions" for German problems which would swallow up or liquidate the German Democratic Republic. In referring to this in his report to the extraordinary XXI Congress of the Communist Party of the Soviet Union, comrade N. S. Khrushchev emphasized: "In considering this type of thinking, we must again remember the role of Chancellor Adenauer,

who fears the reunification of Germany on peaceful democratic bases. His position is completely inexplicable. It runs counter to rationality and to the interests of the German people. Adenauer is the leader of the Christian-Democratic Party. It would seem that he should conduct himself according to the teachings of the Gospel which are emphasized in his party. However, in reality, this "Christian" holds in one hand the cross and with the other he wants to grasp the atomic bomb. And their greatest hopes are placed on just this bomb, although such a view does not correspond in the least to the spirit of the Gospel nor does it solve the national problem of the German people . . ."

Alarmed by the expansion and successes of the international Communist movement, contemporary religious institutions in the capitalist countries are tending to become more and more preoccupied with "social problems" and "labor problems," posing as the defender of the general interests of the workers. The "social program" of the church-supported political organizations in the imperialist states has many elements in common with that of the opportunists from the ranks of the labor movement, and this is inevitable as long as the church defends equally and hypocritically the domination of capital.

It is no less true, however, that in spite of the great efforts which the church makes to hold back the working class in the imperialist states from their revolutionary path, the results are not completely effective. The influence of socialism has proved to be more powerful over the working class than has religion. And it is more than seldom that the clerics suffer both humiliating and significant defeats, such that they themselves have to recognize the great successes of "atheistic materialism." Even some very painful situations for the church have been brought to the fore. For example, not long ago in France a particularly significant development occurred. This was the case of a team of "working priests." Just as missionaries were formerly sent into "savage" countries, so the Catholic Church decidec to send priests among the ranks of the workers in order to influence them from a religious point of view. However, the result was altogether different. A large portion of these priests, living and working among the laborers, began to participate in organized labor disputes. The cardinals were placed in a position where they had to warn the priests either to renounce this activity or be excluded from the church. And--to the chagrin of the church's potentates--60 of the priests refused to comply.

In the capitalist countries an increasingly powerful trend is taking shape in which it is advocated that religion be set aside from the spiritual life of society in order to educate the young generation in the spirit of science.

As a result of pressures from government and clerical circles, the French National Assembly's commission for cultural and social problems of the family recently approved legislation which favored confessional schools in France. This measure aroused a powerful current of public opinion which culminated in ample manifestations throughout France for the defense of the lay character of the schools.

As a historical phenomenon determined by specific social causes, religion is not eternal but is destined to disappear gradually in the development of society. Religious prejudices cnnnot be discarded from man's conscience solely on the basis of the distribution of culture through the illumination of the masses, as believed the illuminists and all the pre-Marxist materialists. Religion can disappear as a social phenomenon only with the disappearance of the social conditions which generate it. The riddance of religion from society has as its material premise the destruction of the social base which generated it and maintained it, the liquidation of systems based on the exploitation of man by man, and the establishment of the socialist system.

The construction of socialism is the conscientious achievement of the working man guided by the Marxist-Leninist party of the working class. For the successful construction of socialism there is a need for men conscious of their mission, confident of their power and capacity for practical action, and guided by a materialistic scientific concept. For this purpose it is necessary to liquidate religious remnants from their conscience, to liberate the working man from the fog of obscurantism and the religious prejudices which disarm man and condemn him to passiveness.

The process of completely liquidating religion is an extensive process which begins simultaneously with the liquidation of exploitative relationships, but which still continues after the accomplishment of the socialist revolution. It is not produced spontaneously nor from one day to the next, because religion has roots deep in the conscience of man, formed over the course of hundreds of thousands of years. Religious mentality is so persistent in the minds of men, because it often finds its support in customs and traditions. Therefore a sustained educational process is necessary to spread scientific understanding which should give men complete faith in their own capacity of knowledge and mastery of nature and society. It is necessary to raise the fog of prejudices and mysticism from man's conscience.

Cultural-education work carried out under the leadership of the Party contributes the maximum to the inculcation of scientific knowledge on the soul of the masses and makes possible the unmasking of religion.

Under the socioeconomic conditions of our country, in which the social and economic bases for the exploitation of man by man have been liquidated, the means for eliminating religious remnants from men's consciences is Communist education, the dissemination of scientific and political knowledge, and the judicious organization of scientific-atheist propaganda. Of course, concomitant with the dissemination of scientific knowledge, an essential aspect of this propaganda is the profound and thorough unmasking of religious ideology, the primary goal being to make it clear that religion has always served to maintain and consolidate exploitation.

The activity of illuminating the working man and liberating him from the influence of religion by means of a patient effort to propagate Marxist-Leninist ideology and advance true science, is an integral part of the struggle for the construction of socialism in our country.

RUMANIAN REVIEW DISCUSSES SPECIAL INSPECTIONS REQUIRED FOR TEACHERS

[Following is a translation of the unsigned article "Special Inspections for Awarding Teaching Degrees" in the Rumanian newspaper Gazeta Invatamintului (Education Gazette), Vol. XII, No. 550, 29 January 1960, Bucharest pages 1 and 7.]

Among the procedures connected with the evaluation of the work of and the results obtained by educators, instructors, and professors for the purpose of granting teaching degrees, the special inspection plays a preponderant role. Its importance arises from the complexity of the activities which must be investigated, as well as from the fact that the results of this inquiry determine the right of the candidate to be admitted to examinations for the restricted degree or degree II, or whether the candidate should be considered for scientific work leading to degree I.

Therefore, in the regulation providing for the implementation of the Government's and Party's decisions concerning the introduction of teaching degrees, it is provided that both aspects of the teaching cadre member's activities--the instructional and the public-social--should be judged separately in special inspections, each with separate ratings, the average of which will constitute the evaluation of the over-all activity of those inspected. In order to be admitted to the examination for a restricted degree, the candidate must obtain an average of at least 7 (neither rating can be less than 6), and for degree II an average of 8 (neither rating can be less than 7); while for degree I only those teaching cadre members are admitted who obtain an average of at least 9 in the special inspection.

The complex character of the special inspection and the fact that its result is final make it imperative that the inspectors have a thorough professional and political-ideological preparation, that they be exact, objective, artfully tactful, and skilled in conducting with ease the procedures of scientific investigation.

The special inspection differs from the usual inspection--individual or group, demonstration or theory--not only in its end purpose and its emphasis on the elements of control and constancy, but also in the fact that the diverse activities of the instructors and professors inspected must be analyzed in their total content to see how they enhance each other and how they contribute to the accomplishment of the principal goal of the schools--the Communist instruction and education of the youth and the raising of the cultural level of the masses. Likewise, in order to capture in a succinct but complete characterization all the aspects of the work of an instructor or professor, those conducting the special investigation must utilize the most varied and most efficient methods of investigation. The short duration of these inspections in relation to the complexity of the activities investigated is based on the supposition that each inspector possesses the quality to perceive rapidly and profoundly the essential elements of each activity of the teaching cadre member.

The objectives which are pursued in this investigation pertain to the principal duties of the instructors and professors in their instructive-educational work with the students and in their social-cultural and public activity carried on both in and outside the school. In regard to the instructive-educational work, the special investigation has as its objective an analysis of the professional and political-ideological preparation of those inspected, their activity in class and outside of class and school, their leadership capability, their teaching method, etc. In investigating these aspects the inspector will definitely assess the ideological and scientific content of the lessons given by the instructor or professor inspected and how this is assimilated by the students; the teacher's concern for the intellectual orientation of the students regarding the dialectric-materialist concept of nature and society, and for the students' atheistic-scientific education; the way in which the teacher, through lectures and other activities, demonstrates the ties between school and life, between theory and practice; the level of the scientific and political-ideological preparation of the students and their practical demonstration of this preparation; the teacher's use or nonuse of the most suitable means for the patriotic and internationalist education of the students, for the formation of logical thinking, and for instruction in the proper conduct for exhibiting this education; the teacher's pedagogical subtlety, his comportment during lectures, his attitude toward the students, his working style, and whether or not his example is worthy of being followed. Likewise, the inspector will judge the extent to which the professor understands and transforms into reality the decisions of the Party and the state concerning education and the regulations and instructions concerning the conduct of school activities; his contribution in giving general applicability to the 7-year schooling, in raising the qualitative standards of instructive-educational work in evening classes and in the preparation of the workers' children; the way in which he collaborates with the youth and parents' organizations for the improvement of work in the schools; etc.

In investigating the social-cultural and public activity of the instructors and professors, the inspection will determine to what extent the teachers fulfill the duties relative to this phase of their educational work as outlined by the Party and the Government, duties which can be determined clearly from statements made at the Congress of Educators by comrade Gh. Gheorghiu-Dej and from numerous other documents of the Party and the state. Accordingly, the inspection must establish the method in which the educational cadre member contributes to the accomplishment of the important objectives of the cultural revolution and the building of socialism in our country, i.e., the popularization and the transition into reality of the decisions of the Party and the state in regard to the development of the national economy according to the socialist pattern, particularly the socialist transformation of agriculture and the development of the Communist conscience of the masses through the popularization of scientific knowledge and atheist propaganda and the awareness of international and domestic political problems. Therefore the inspection

will cover the activity in general cultural and professional circles, artistic and sports activities, activity at the people's libraries and in local community organizations, etc. Also to be taken into consideration will be the efforts of the instructors and professors to mobilize the students and the citizens in various patriotic projects--the beautification of cities, the maintenance of parks, the construction of school buildings, the collection of scrap iron and medicinal herbs, participation in the harvest, etc.

Another important aspect of the educational cadre member's work which will be analyzed by the control organs encompasses the teachers' scientific work as exhibited in various studies, published articles, manuals or works presented through scientific societies in scientific discussions, formal lectures, conferences, etc., and which have been favorably received. The inspection will establish the extent to which these activities are the result of personal scientific research, and whether they contribute to the solution of problems on the current level of instruction or whether they contribute to the progress of our new science, art, or literature. The content and purpose of these works can be considered, individually, as comprising one aspect or another of the educational cadre members' activities, depending on the subject and the end effect.

In order to be able to accomplish the completest possible inspections within a short time (3, and at most 4, days for each instructor and professor), it is necessary for the control organs to give serious advance preparation to their work. This involves the acquiring of a perfect understanding of the documents submitted th those inspected, the newest problems of the educational speciality, and the organization of the inspection. The letter necessarily is comprised of plans for carrying out the inspections, including a daily and hourly breakdown of detail concerning the activity to be studied and completed within the inspection program and schedule, from the moment that the inspector contacts the school and begins the inspection.

The director of the school is an invaluable aid to the inspector in the rigorous scheduling of time. He can provide information concerning the instructor or professor inspected, place at the inspector's disposal the school records, and recommend to him the persons who can best aid in the exact characterization of the instructor's or professor's activities in school and in society. An inspection plan prepared after serious, detailed thought concerning the objectives and their content, the methods and procedures used for each activity, and the judicious distribution of time, is an important instrument in the good conduct of a special inspection.

Inasmuch a the study of the varied activities of those inspected must lead to a precise and objective characterization, those who conduct this evaluation are obliged to use the most varied methods and procedures. Certainly the best investigational method in this situation is direct observation, which can be accomplished by attending the lectures and other school or extracurricular activities of the instructor or professor, either as a student or as one of the general populace in the cultural institutes,

enterprises, fields, etc. Another method used in addition to observation is that of conversing with the inspected educator and with different administrative officials both in and outside of the school: the director of the school, the secretary of the Party organization, the leaders of the youth and mass organizations, the director of the cultural center, the director of the rayonal cultural organization, the village or rayonal library, etc. The conversation must not be of a spontaneous or casual nature, but must follow a planned outline with a precise content. The observation and conversation methods must be supported and strengthened by an investigation of documentary and social-cultural material, e.g., the general plan of the school; the notebook of the director for class observation; the minutes of the teachers' council, the procedural commission and the educational cabinet of the school, the union organizations and other mass organizations; the register of activities at the cultural center or the library; planning on the school calendar; lesson plans; the educational-project plan (for those being inspected and for those being taught); theme notebooks and compositions of the students; etc. When the need for good documentation requires it, other procedures can be used such as direct or indirect control, either oral or written, the questionnaire, etc. In employing the methods of investigation, the control organs must be careful to notice means of improving these methods so that they support and verify each other, thereby contributing to the most judicious conclusions concerning every activity of the inspected instructor. Since direct observation has a preponderant role in carrying out an inspection, it must be employed most often in the investigation of group activities, class instruction, visiting lectures in enterprises, etc.

In order to aid the control organs in establishing conclusions, it is imperative that the ratings for each observation should be made systematically as the inspection progresses, according to the objectives in the order in which they appear in the inspection plan and the order in which they will be analyzed in the final document.

The inspection will conclude with the analysis session, which takes place in the school in the presence of the inspected instructor, the director, and other representatives of leading organizations in the school.

In view of the fact that the granting of teaching degrees is integrated organically into the system of perfecting educational work, the special inspection must not be limited solely to the evaluation of particular activities, but must be used as a valuable tool for substantially raising the general quality of work. Therefore the inspection must not be lacking in its function of guidance.

In establishing the positive and negative aspects of each area of activity of the instructors and professors, the special inspection requires a profound analysis of the causes of weaknesses and the procedures for eliminating them so that it can conclude with guidance for continuous work improvement. Of course, in the case of the special inspection, in order not to confuse the instructor and to make it possible for him to develop his own work system, guidance will not be given during

the course of the investigation, as often happens; rather it will be given in the final analysis session of the inspection. The final session begins with the instructor's or the professor's self-analysis and termiates with the inspector's conclusions, which call attention to positive performance and give guidance for the elimination of deficiencies. The method in which this session is conducted is of particular importance. Through his conclusions, introduced in a comradely but firm tone, the inspector presents to the instructor a characterization based on fact, and through the guidance extended the inspector contributes to the qualitative improvement of the instructor's work and, consequently, to the improvement of school activities and education in general. Some possible contradictions must be resolved on the spot, for the person inspected must emerge convinced of his responsibilities for the future.

The total activity pursued in the preparation and accomplishment of the inspection must be directed systematically toward the preparation of the official document--the proces-verbal--in which are recorded all the conclusions established and verified by means of the methods discussed. The written presentation must be clear, precise, pertinent, and objective, with well-founded assertions and indisputable logic, so that the evaluations--partial and final--may appear as the natural conclusion of the contents of the characterization contained in the official report of the inspection.

The above description of the special investigations clearly reveals, on the one hand, the important position which this inspection holds in the process of granting teaching degrees and, on the other hand, its important role in guiding the multiple activity of the teaching cadre.

The directors of the schools have a particular responsibility in making it possible for the special inspections to be carried out under good conditions. It is imperative for the directors to know their cadre members well, to develop ample means for guidance and control through assistance in activities and discussions with observers, to organize and cardfully maintain all school records which reflect the activity of the teaching staff, to be able to make at any time a just characterization consistent with reality for any of the school's employees. The staffs of the improvement institutes and the inspectors of the education and culture sections must plan their inspectional duties with precision and, on the basis of their accumulated experience, endeavor to develop superior new forms for the permanent guidance of the educational program and for a more exact investigation and characterization of the school's work.

Therefore it is an imperative requirement for the guidance and control organs to direct their careful attention to the thorough preparation of the special inspections and to make a profound and pertinent analysis of the activities of the instructors and professors inspected. In this way the special inspections will be a valuable support for the improvement of the work of the teaching staffs, increasing their sense of responsibility and their contribution to the Communist education of youth and the raising of the cultural level of the popular masses.

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EXCESSIVE HOME ASSIGNMENTS FOR STUDENTS ATTACKED BY RUMANIAN REVIEW

[Following is a translation of the article "The Great Volume of Homework: The Reason for Overloading," an unsigned article in the Rumanian newspaper Gazeta Invatamintului (Education Gazette), Vol. XII, No. 550, 29 January 1960, Bucharest, page 3.]

Homework--when it is not abused--plays an important role in consolidating students' knowledge, in fortifying students with an understanding of how to apply the knowledge acquired in class.

By administering homework judiciously and rationally in such a way that students are not overloaded, many professors are successful in attaining the goal which they are attempting to fulfill with these assignments. They give serious attention to preparing their lectures; they use good judgement in apportioning the material which they assign to the students, helping the students to see the correlation between homework and classwork; they clearly explain the method of preparation for the homework; they maintain close contact with supervisory professors and with the students' parents; and they are always mindful of the way that students use their time outside of school.

Unfortunately, however, this situation does not exist everywhere. One can still find schools in which the students are overloaded with homework. Although the damaging consequences of overloading are known, there are still professors who do not take these consequences into consideration. They often try to justify this practice by citing reasons which are irrelevant to their work. Nevertheless, in recent years school programs have been greatly restricted, manuals simplified, and extracurricular activity has been so regulated that the students can develop under good conditions. Today the principal source of burdening the students with obligations beyond their capacity is found in the defective manner of organizing the instructive-educational work in some schools, and one of the most significant factors contributing to this overburdening is the volume of homework which some professors continue to give to their students.

As long ago as January 1958, the Ministry of Culture and Education prepared instructions designed to eliminate the practice of overloading. In these instructions there was criticism of the fact that there was no coordination or proper apportionment among all the materials of the various classes, either for daily or weekly homework. It was pointed out that there are still frequent cases of students having to prepare written work for five to six classes on a single day, with the result that the students must devote 4-5 hours or more at home in the preparation of the written work, go to bed late without being prepared for all classes, and then be tired for class the next day. In such cases there is not the necessary time remaining in the day for supplementary lectures, for other recreational activities, and for rest. In condemning such practices, the instructions gave clear and precise guidance to the teaching cadre, requesting that the level of difficulty and the volume of homework for each

class be carefully weighed so as not to exceed the students' capacity, making it possible for the completion of homework within a specified time norm. The instructions further requested that the teaching cadre give reduced quantities of homework for the days following holidays and no more than the usual daily quantity of homework over the winter and spring vacations. It was completely forbidden that students be given such homework as written summaries of history, the constitution, natural science, physics, chemistry, geography, mathematics, physiology, and logic. Also forbidden was the transcription of notes, diagrams, outlines, or designs taken or made during the lecture period.

Nevertheless, despite the fact that the instructions are clear and categorically stated and the Ministry has continually referred to them in various other materials as reminders to the teaching cadre, there are still those teachers who do not understand their significance and who disregard them. These teachers are merciless in assigning homework to their students, assuming that the students will learn more. They force the students to solve tens of mathematical problems from one day to the next, or to prepare summaries, plans, maps, designs, outlines, etc. Cases have been encountered in Bucharest of professors of mathematics assigning 50, 100, or 150 problems to their students to be done over the winter vacation, as a result of which the students literally did not have a free hour. By not taking into consideration the fact that the students are obliged to prepare for more than one course, the described professors impinge on the total time which, if allotted judiciously, can be used for both the study of all courses and for rest. Simultaneous assignment of excessive homework by several professors causes the students to slight the preparation for those lectures in which they consider they will not have to recite, and consequently they neglect the work assigned by professors who do not overload. Conscientious students endeavor to fulfill their scholastic obligations by giving up their time reserved for recreation and rest. They cram and only superficially assimilate knowledge which, not being deeply fixed in their memories, is soon forgotten. Sometimes such a situation can have consequences sufficiently grave to influence even the health of the student.

Therefore it is necessary that all the teaching cadre members analyze seriously and with a sense of responsibility their attitude in this regard. Teachers must be aware that the purpose of homework is only to intensify through the students' independent work, the knowledge already acquired in class; and that by forcing the students to do an exaggerated quantity of homework, the teacher not only does not facilitate better preparation but can actually hinder it.

There are many, many lectures which do not actually require the preparation of homework. The professors know this and are capable of judging when it is necessary for the students to intensify the knowledge acquired in class by the preparation of exercises, the solution of problems, or the completion of other written work. At all times they must keep this fact in mind and proceed accordingly.

The problem of written homework and overloading in general must be a matter of constant concern for the directors and their assistants. It is imperative that they coordinate, supervise, and control the efforts to which the professors subject the students, thereby facilitating an increase in the students' level of understanding through the rational distribution of time allotted for learning.

Poland

POLAND'S NEED FOR MECHANICAL ENGINEERS IN 1960-1975

[Following is a translation of an article by Tadeusz Wodzynski in Przeglad Mechaniczny (Mechanical Engineering Review), No. 2, Warsaw, 25 January 1960, pages 29-33.]

In the group of mechanical engineers are included engineers of various specializations who were educated in typical mechanical-engineering, aeronautics and shipbuilding departments. However, excluded were the engineers of mechanization of mines, or metallurgy and agriculture, and of power and railroad transportation, who specialize in mechanical engineering.

Serious difficulties appear in the economic development of many countries, caused by the lag of education (to the extent of several years of training) behind the actually developing need for graduates. Determination of the aims of education on the basis of immediate needs and the day-to-day fluctuations in the labor market has added to a significant lowering of the education level of graduates.

In order to secure the desired ecucational results (quantitatively and qualitatively) it is necessary to have a view to the future in planning. Studies in this area are now being conducted in the countries of the peoples' democracies as well as in Western European countries. In Poland they were initiated in principle in 1956 by the Committee on Planning of the Council of Ministers, in constant touch with the Social Commission on Problems of Qualified Personnel and which commission was appointed from scientific workers and specialists in particular economic fields. The first study covered the years 1956-1965. The second study, which at present is in the nature of a preliminary estimate, covers the years 1960-1975. Material collected for this study allows for a more detailed analysis of the selected problem, the formation of demand for mechanical engineers in the national economy.

Statistical Data

The first data concerning the extent of technical personnel employment were the result of the survey of engineers and technicians conducted by the Central Technical Organization in 1950. According to this survey, the number of professionally active mechanical engineers amounted to 5,133 (including 31 women) who represented 24.1% of the total number of engineers. Similar figures for technicians in mechanical engineering amounted to 11,674 (including 35 women) representing 28.5% of the total number of technicians. The proportion of mechanical engineers to technicians in mechanical engineering was expressed in the ratio 1:2.28.

More exact information is found in the survey of professional personnel conducted by the Central Statistical Office on October 1, 1956. The results, which were revised several times, in the most recent version (See Bibliography, No 4 [appended] indicate that there are 17,665 mechanical engineers (including 272 women) professionally active, which represents 26.5% of the total employees with higher technical education and 8.9% higher education. The number of technicians in mechanical engineering, according to the same data, amounted to 42,476 (including 1,509 women) representing 37.2% of the technical profession group and 10.2% of the total number of technicians. The proportion of mechanical engineers to technicians of mechanical engineering has remained close to the 1950 ratio 1:2.4. The final material from the survey presents the employment of personnel by sections of the national economy (Table 1). Theoretically this distribution is the most reliable basis for planning the expansion of personnel, because it defines the basis by groups, whose development is determined by homogeneous parameters (value of production, of services, of commerce, of the total size of employment, of investments, and the like).

Difficulties encountered in collecting the complete material necessary for the starting point and for assumptions of development which are necessary in planning for the branches of national economy have resulted in the more practical division of personnel according to the sections of the national economy in which they are employed. This division for mechanical engineers is illustrated by Tables 2 and 3. The 1956 figures given in them were determined mainly in the basis of the earlier survey conducted by the Central Statistical Office (Bibliography, No 3) and are not precise figures. The error in distribution, the extent of which may be estimated as up to $\pm$ 5%, has no great significance for the purpose of long range planning.

Table 1. Employment of Mechanical Engineers and Technicians by Sections of the National Economy (Situation as of October 1, 1956)

Section of the National Economy	Mechanical Engineers		Mechanical Technicians		Ratio of Column 4 to Column 2
	Number	%	Number	%	
1	2	3	4	5	6
1. Industry	9,710	55.0	31,101	73.2	3.20
2. Agriculture	161	0.9	407	1.0	2.52
3. Forestry	1	0.0	9	0.0	-
4. Construction	2,912	16.5	4,839	11.4	1.66
including designing bureaus	1,634	9.3	1,297	3.0	0.8
5. Transportation and communication	343	1.9	1,280	3.0	2.68
6. Commerce	106	0.6	303	0.7	2.86
7. Cultural and social establishments	2,792	15.8	2,659	6.3	0.95
including research institutes	868	4.9	498	1.2	0.57
8. Municipal economy	104	0.6	263	0.6	2.5
9. Central public administration	1,424	8.1	1,194	2.8	0.85
10. Regional public administration	94	0.5	352	0.8	3.75
11. Finance and insurance	12	0.1	68	0.2	5.67
12. Non-productive services	6	0.0	1	0.0	-
Total	17,665	100	42,476	100	2.40

Method of Calculating the Increase in Number of Positions for Mechanical Engineers

During the years 1956 and 1957, investigations were conducted on the anticipated personnel needs of industry for the period 1956-1965 (Bibliography, No 7). Although these investigations were based on figures existing at that time and assumptions of industrial development which to some extent lost their validity, they determine, however the current lack of personnel and the directions of necessary shiftings in the structure of professional and qualified personnel.

The total number of intellectual personnel in industrial sections was discussed on the basis of a division of employees into the following groups: (1) central public administration, (2) construction offices, (3) research institutes, and (4) industrial enterprises. In addition, the employees in last group were sub-divided into: (1) managerial, (2) those developing new products and modernizing already manufactured products, (3) those developing and introducing new technical processes (except foremen), (4) those employed in intermediate technical supervision (foremen), (5) those employed in the general operating activities (machine-tool rooms, departments of the chief mechanical engineer), (6) those employed in the purchasing and distributing departments, and (7) those in administrative offices.

Table 2. Employment of Mechanical Engineers by Sections of the National Economy

Section or a group of sections	Situation as of October 1, 1956		Situation Postulated for the Years							
			1960		1965		1970		1975	
	Number	%	Number	%	Number	%	Number	%	Number	%
1. Industry	12,600	71.3	25,200	80.2	33,250	81.3	45,650	82.6	59,700	84.0
2. Agriculture	300	1.7	700	2.2	950	2.3	1,050	1.9	1,150	1.6
3. Construction	900	5.1	980	3.1	1,150	2.8	1,340	2.4	1,470	2.1
4. Transportation and Communication	1,480	8.4	1,850	5.9	2,700	6.6	3,650	6.6	4,650	6.5
5. Commerce	175	1.0	210	0.7	250	0.6	320	0.6	390	0.5
6. Cultural and Social Establishments	1,750	9.9	1,950	6.2	1,970	4.8	2,450	4.4	2,780	3.9
including: vocational education	240	1.4	260	0.8	265	0.6	265	0.5	390	0.5
and higher education	1,250	7.1	1,400	4.5	1,400	3.4	1,900	3.4	2,100	3.0
7. Municipal economy	230	1.3	330	1.0	420	1.0	550	1.0	690	1.0
8. Finance and insurance	15	0.1	15	0.0	15	0.0	15	0.0	20	0.0
9. Presidia of National Councils	95	0.5	95	0.3	120	0.3	150	0.3	170	0.2
10. Other	120	0.7	120	0.4	125	0.3	125	0.2	130	0.2
Total	17,655	100	31,450	100	40,950	100	55,300	100	71,150	100

Note: In the group "Cultural and Social Establishments" were included: Ministry of Culture and Art, Ministry of Higher Education, Ministry of Education, Ministry of Health, Polish Academy of Sciences, Central Bureau of Cinematography, Polish Radio, Publishing enterprises, and the like. The group "Other" consists of such agencies as: Bureau of the Council of State, Ministry of Justice, Central Statistical Office, Polish Committee on Standards, and the like.

Table 3. Employment of Mechanical Engineers by Sections of Industry

Section	Situation in 1956				Situation Postulated for the years:							
	Actual		Desired		1960		1965		1970		1975	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1. Metallurgy	1,300	10.3	1,390	7.3	1,400	5.5	1,600	4.8	2,200	4.8	2,560	4.3
2. Mining	780	6.2	1,350	7.1	1,440	5.7	1,660	5.0	1,940	4.3	2,160	3.6
3. Petroleum Industry	180	1.4	140	0.7	150	0.6	150	0.5	170	0.4	200	0.3
4. Power Industry	650	5.2	690	3.6	910	3.6	1,200	3.6	1,830	4.0	2,440	4.1
5. Machinery Manufacture	7,000	55.5	10,400	55.0	14,650	58.2	20,200	60.8	28,100	61.5	37,800	63.4
6. Chemical Industry	830	6.6	970	5.1	1,500	6.0	2,730	8.2	4,160	9.1	5,730	9.6
7. Building Materials Industry	210	1.7	580	3.1	700	2.8	840	2.5	1,030	2.3	1,270	2.1
8. Wood and Paper Industries	330	2.6	360	1.9	400	1.6	440	1.3	650	1.4	870	1.5
9. Light Industries	350	2.8	950	5.0	1,050	4.2	1,160	3.5	1,450	3.2	1,800	3.0
10. Food Industries	400	3.2	1,170	6.2	1,420	5.6	1,660	5.0	2,150	4.7	2,650	4.4
11. Small Industry and Handicraft	350	2.8	490	2.6	770	3.0	770	2.3	910	2.0	1,030	1.7
12. Production Cooperatives	220	1.7	460	2.4	810	3.2	840	2.5	1,060	2.3	1,190	2.0
Total	12,600	100	18,950	100	25,200	100	33,250	100	45,650	100	59,700	100

For groups and sub-groups of personnel obtained by such calculation, a correction was introduced based on sampling as to the actual number and qualification structure of filled positions.

The number of personnel in the central management and in construction bureaus was evaluated as being too high (on the average 25% too high in management and 60% in construction bureaus), and, in research institutes, as being correct in principle. However, an obvious lack of proper filling of positions was discovered in the group of production enterprises. As an illustration of this lack in the managerial sub-group, it may be cited that 22% of the factory directors, 16% of the chief engineers, 9% of the chief technical engineers, 26% of the head mechanical engineers, and 36% of the production department heads had, in 1956, received education below the secondary school graduate level (Bibliography, No. 3).

The need for a basis from which one could proceed to the level of a planned situation by means of the method of indices has led to the creation of a fictious starting point of the optimal level of personnel for 1956 insofar as the number and qualification structures are concerned. The calculated total figures of this situation for mechanical engineers are included in Table 3 in the column "Desired Situation".

The indices of increase of personnel during the planned period of time have been determined for each group and sub-group by the means of a number of parameters which have the largest influence on this increase (in the following sequence of groups and sub-groups: degree of centralization of management and the size of employment in general, the amount of investments, the amount of allotments for research, number of active factories, number of types of products, value of production, employment of industrial group workers, size of installed power, and technical progress measured in terms of labor efficiency, number of types of products and value of production, and total employment).

The resultant indices of increase for the entire personnel of a given level of education in particular groups of industry were calculated on the basis of the increase in production value. Changes in the structure of professional personnel were postulated, to a large degree, on the basis of comparable foreign data and the suggestions of given groups of industry.

The conclusions of these investigations (after introducing necessary corrections and refinements) were utilized in this paper. Based on these investigations and on the actually planned increase in the production value of particular branches of industry (Bibliography, No 2), the number of mechanical engineers for the planned situation was calculated as shown in Table 3. In Table 4 are given percentages of mechanical engineers in relation to the total number of employees with higher education.

Table 4. Proportions of Employed Mechanical Engineers in Relation to the Total of Employees with High Education by Branch of Industry

Branch of Industry	Employed Mechanical Engineers per 100 Employees with Higher Education					
	Situation 1956		Situation postulated for the years			
	Existing	Desirable	1960	1965	1970	1975
Total	25.5	26.0	27.6	28.5	29.0	29.2
1. Metallurgy	18.5	17.7			17.2	
2. Mining	14.8	17.0			17.5	
3. Petroleum Industry	18.3		15.0			
4. Power	17.5		18.0			
5. Machinery Manufacture	58.0		60.0			
6. Chemical Industries	13.5		15.0			
7. Building Materials Industry	13.2		19.0			
8. Wood and Paper Industries	11.4		13.0			
9. Light Industries	9.4		10.5			
10. Food Industry	8.2		12.0			
11. Small Industry and Crafts	29.0		35.6			
12. Production Cooperatives	21.0		23.0			

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11. Small Industry and Crafts	29.0		35.6			
12. Production Cooperatives	21.0		23.0			

Allowance to be made for correction of calculations obtained in this way should be estimated at ± 10%. This possibility of error is due primarily to the fact that the value of production is expressed in the data of the Committee on Planning, not by groups of industry but by branches of industry, while an analagous calculation of personnel is not possible at this time in any practical sense. It does seem, however, that the nature and the rate of increase in production value of a selected industrial branch and a group of industry embracing the majority of factories in such a branch, should be close to each other.

The next factor which leads to error is that automation of production processes, which will be utilized more and more during the period under consideration, is not taken into account. Research in that area is only now being initiated. Nevertheless, one may estimate that if, with the increase of automation, the proportional employment of engineers to technicians and to the entire group of industrial workers will undergo a radical change, the need for engineers with electric specialization and scientists will be increased, significant shifts of engineers among organizational sections of factories will occur, and new aspects of training will develop. However, the number of positions for mechanical engineers will not undergo major changes in relation to the postulated figures.

Calculations of personnel increase among mechanical engineers for nonindustrial groups were only approximate because of the scant data pertaining to the method of utilization of existing personnel and to factors involved in the eventual change of professional structure of the total personnel with higher education in these groups of industry.

Suggestions conveyed by pertinent groups of industry and indices of planned production, services, and general employment in these groups of industry (L.2,5 and 6) were utilized to arrive at the estimate.

An attempt to evaluate the regularity of the growing need for mechanical engineers

The necessity for sometimes accepting simplified assumptions in planning for growth in the number of mechanical engineer positions in the national economy reduces the degree of exactness in the resultant calculations. Evaluation of existing sources permits, however, the conclusion that, taking into account the natural compensation of errors, the total error for the whole economy will not exceed ± 10%. Greater changes in these figures can be brought about only by a change in the value of the very parameters used in the calculations. Under perspective planning for a period of 15 years, such as availability is obviously always possible, since it may even result from a feed-back reaction (that is, lack of personnel for the proper filling of all positions may result in slowing down the presently planned speed of increased production.

Values of the postulated situation in the employment of mechanical engineers (Table 2) indicate a steady improvement in the existing situation which is faced by a significant number of engineers being employed outside the industry. In addition, assumptions accepted in that part of the calculations which pertains to groups of industry anticipate a much faster quantitative increase in the group of engineers who are employed directly in factories. From the distribution of mechanical engineers among particular groups of industry (Table 3), it is evident that a greater percentage of them is being grouped in the groups of machinery manufacture, chemical, and power industries. This is connected with the fact that the increase of the production value of these groups of industry is significantly faster than in the case of other groups.

The general character of employment increase for mechanical engineers in industry is represented in Diagram 1. This interpolated diagram of employment was supplemented by graphs starting from a common point and depicting total employment and production value in the whole industry and in the industries most typical for employment of mechanical engineers, i.e. in the machinery and metal working industries. These industries are treated here as a group of industries, regardless of what sections of the national economy are represented in them. The employment of mechanical engineers increases a little slower than the value of production and quicker than the total employment. Such relationship may be explained by technical progress and should be recognized as a normal phenomenon.

A significant difference in the rate of employment of mechanical engineers in relation to the total employment is also caused by the necessity for increasing labor efficiency independently of technical progress and within the existing framework of industrial methods and organization. The fact that the rate of increase in production value is overtaken by the rate of increase in employment of mechanical engineers in the period 1956-1960 results from the difference between the actual situation of employed mechanical engineers and the number of positions postulated for these engineers in 1960 disregarding the extent to which these positions are satisfactorily filled. Therefore, only that part of the line represented by dashes in the diagram and drawn to the "desired" situation is comparable.

The proportion of the rate of increase in the number of positions for mechanical engineers in the whole national economy as compared with a similar rate of increase for engineers in other professional groups is represented in Diagram 2. Figures in the diagram, which do not pertain to mechanical engineers, are in the nature of an estimate, but they show generally a tendency towards a more rapid increase in the need for chemical and electrical engineers and a less rapid increase in the need for construction engineers. This can be explained insofar as chemical engineers are concerned by assuming a vast development in the chemical industry that is significantly greater than in any other branch of industry. And, for the construction industry, it can be explained by the completion of the war-damage reconstruction period and the presently

abnormally high -- in comparison with foreign figures -- proportion of engineers to the total number employed in the construction industry. The rate of increase in the need for electrical engineers is due to the expansion of the power industry, as well as to the introduction of automation of production processes, which depends to a large extent on electrical apparatus. It seems, even, that this last aspect has not been sufficiently taken into account and that the rate of increase in the need should be even higher.

Lack of exact data on the postulated need for mechanical technicians in the national economy is undoubtedly a factor which increases the difficulties in discussing the postulated figures of employment of mechanical engineers. At this time, the only known planned value based on presently valid assumptions is the total number of mechanical technicians postulated for 1955 and amounting to 105,800 (that is, 45.5% of the postulated number of personnel with secondary technical education, and 11.8% of the total personnel with secondary vocational education). (L.4) It is presently predicted that the extent to which this need will be met will not exceed 62,000, that is, less than 59% of the postulated figure (for technicians of other specializations, 63% on the average).

The postulated figure demonstrates a trend to increase further the number of technicians per engineer (2.6 against 2.4 in 1956, and 2.28 in 1960). Attention should be drawn here to two diverse tendencies which are operative in the employment of technicians. Many positions satisfactorily filled today by technicians will more and more frequently require graduates of higher technical schools of the non-academic type. At the same time, the increasing technical complexity of machinery will more and more require secondary technical education from the maintenance people. Will the result of the mentioned trends correspond to the proportions in the employment of engineers and technicians? It is hard to answer this question today.

Need of National Economy for Mechanical Engineers.

The extent of need rests in: the demand for filling an increasing number of positions and the demand for replacing employees who leave their positions causing normal depletion. The magnitude of normal depletion is estimated at the level of 3% annually. Because, however, the postulated employment figures indicate a significant shift toward a lower age bracket, the depletion percentage accepted for calculations was made dependent upon the ratio of employment increase. It was estimated that for an annual employment increase of 7%, 4.5%, 2.5%, 1% and 0%, the depletion will amount correspondingly to 1%, 1.5%, 2.5% and 3%. (L.1). The calculated figures of demand are given in Table 5.

Table 5. Demand for Mechanical Engineers for the National Economy by Groups in the Period 1957-1975

Sections or Group of Sections	Demand by Period							
	1957-1960				1961-1965			
	To Fill		Total		To Fill		Total	
	Increase	Depletion	Number	%	Increase	Depletion	Number	%
1. Industry	12,600	505	13,105	89.8	8,050	1,260	9,310	82.1
2. Agriculture	400	12	412	2.8	250	35	285	2.5
3. Construction	80	72	152	1.0	170	98	268	2.4
4. Transportation and Communication	370	60	430	2.9	850	92	942	8.3
5. Commerce	35	10	45	0.3	40	16	56	0.5
6. Cultural and Social Installations	200	140	340	2.3	20	290	310	2.7
Including:								
Vocational Education	20	19	39	0.3	5	39	44	0.4
Higher Education	150	75	225	1.5	0	210	210	1.9
7. Municipal Economy	100	9	109	0.7	90	25	115	1.0
8. Finance and Insurance	0	2	2	0	0	2	2	0
9. Presidia of National Councils	0	11	11	0.1	25	7	32	0.3
10. Other	0	14	14	0.1	5	15	20	0.2
Total	13,785	835	14,620	100	9,500	1,840	11,340	100

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Demand by Period							
1966-1970				1971-1975			
To Fill		Total		To Fill		Total	
Increase	Depletion	Number	%	Increase	Depletion	Number	%
12,400	1,660	14,060	85.0	14,050	2,280	16,330	86.1
400	95	195	1.2	100	100	205	1.1
190	87	277	1.7	130	134	264	1.4
950	135	1,085	6.6	1,000	273	1,273	6.7
70	19	89	0.5	70	24	94	0.5
480	148	628	3.8	330	245	575	3.0
0	40	40	0.2	125	13	138	0.7
500	70	570	3.4	200	190	390	2.1
130	21	151	0.9	140	41	181	0.9
0	2	2	0	5	2	7	0
30	9	39	0.2	20	15	35	0.2
0	19	19	0.1	5	16	21	0.1
14,350	2,195	16,545	100	15,850	3,135	18,985	100

Adjoins page 417

Attention should be drawn to the fact that need for personnel during the period up to 1960 was calculated in relation to the actual situation and includes, among others, the number of engineers needed for replacement of a considerable number of unsuitably placed engineers. The actual number is in fact smaller because there is no practical possibility of effecting complete replacement. The number of graduates from mechanical engineering departments will not ba as great [as postulated] in this period.

The estimate of real need in the period 1961-1975 constitutes such a vast problem that it will be the subject of a separate article.

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Figure Appendix

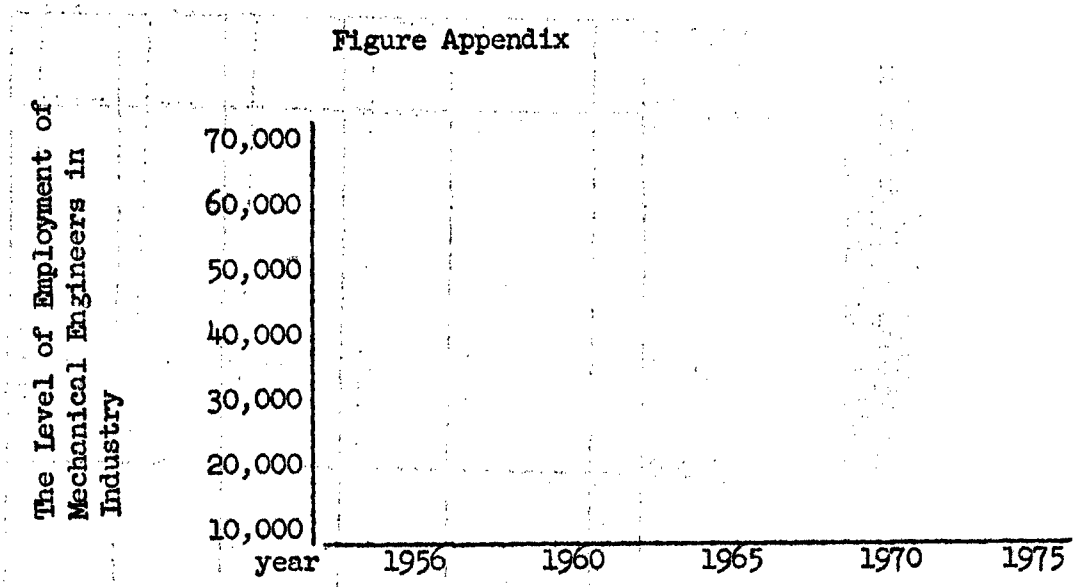

Diagram 1. Postulated employment increase for mechanical engineers in industry within the years 1956-1965, against the increase in production value and total employment. The broken line of the diagram represents the desired situation; 1 - net value of production of machinery manufacture and metal industry; 2- employment of mechanical engineers; 3 - total net value of industrial production; 4 - total employment in machinery construction and metal industries; and 5 - total employment in industry.

Notes: Figures on the X axis pertain only to increase in the number of positions for mechanical engineers. The diagram lines for total production value and total employment merely indicate the rate of increase of the represented values.

Figure Appendix

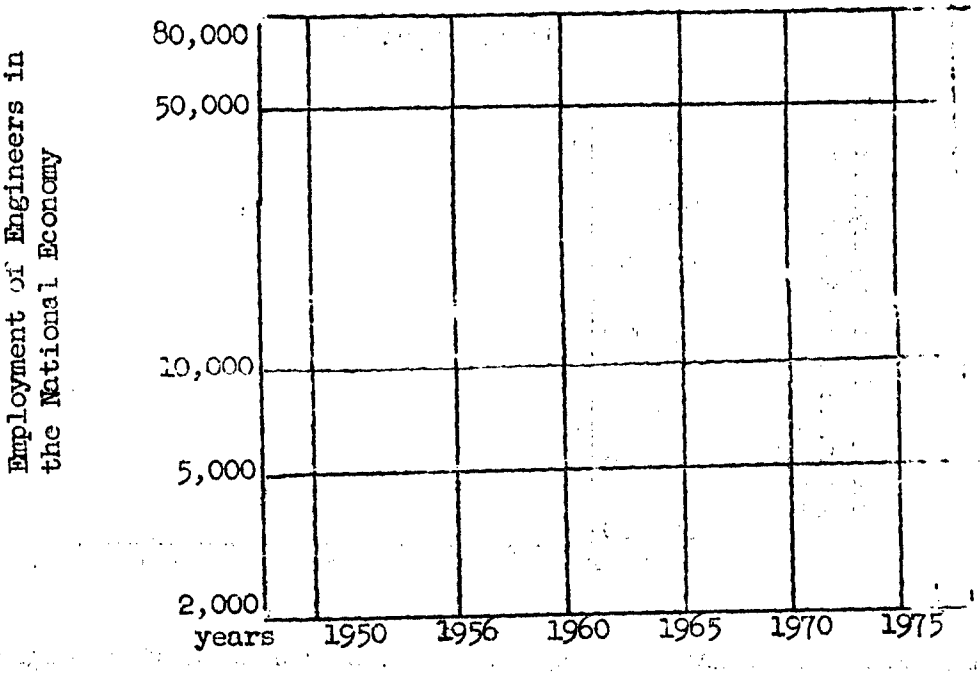

Diagram 2. Increase in the employment of mechanical engineers in the national economy (actual during the period 1950-1956, and postulated for the period 1956-1975), against the background of a comparable increase of professional chemical engineers (chemical and food technology engineers), electrical engineers (electrical and communications engineers), and construction engineers (architects, civil engineers, and sanitary engineers); 1 - mechanical engineers, 2 - electrical engineers, 3 - construction engineers, and 4 - chemical engineers.

FACTS AND FIGURES ON CRIMES COMMITTED IN POLAND
(Some Comparisons With Data of the Prewar Period)

[Following is a translation of an article by Jerzy Bafia in the Polish periodical Nowe Drogi (New Roads), Vol. XIV, No. 3 (130), March 1960, Warsaw, pages 158-163.]

The wide interest of the public in the problems of crime, the numerous items of information on particular crimes, and crime in general sometimes creates the impression that the incidence of crime has increased to such an extent in our country that it exceeds that of the prewar preiod.

It is worthwhile, then, to take a closer look at the problem.

Comparison of crime in recent years with that of the prewar period is not easy. Poland's territory has changed to a certain extent and, in addition, the population has become smaller. Social conditions have changed basically and the people have also changed to a large extent. Our penal laws have undergone a significant change and the judicial agencies prosecuting crime have also undergone a transformation: on their standards, carefulness, and speed of action depend the number of crimes discovered and tried in the courts. There are also different criteria for different years in the compilation of statistics.

Bearing in mind all this, it is nevertheless worthwhile to use statistical data, because such fundamental changes have occurred in many groups of crimes that they are quite obvious, despite all the difficulties attending comparison.

Crime statistics are based on lawful conviction by the courts, on data reported by the police, and, in our case, also by the citizen's militia.

There is a significant consensus of opinion that data gathered on the basis of court sentences are more exact, more easily accessible, and illustrate better the average tendencies which actually exist.

Therefore we shall base our considerations on court sentences which we shall supplement with data pertaining to reported crimes, wherever the use of such data is possible.

General data pertaining to crimes

We shall deal first with general data concerning persons sentenced by the courts.

In the year 1937, 406,731 adults and juveniles were recorded as having been sentenced by courts on charges brought by both public and private prosecution. This is not the highest figure for the period between the two wars. In other years, the figures on persons convicted were significantly higher (for example, in 1923 there were 642,691 persons convicted; and in 1935, 622,051).

In People's Poland, during the period when crime statistics were ordered, the following figures on convictions were recorded:

Year	Adults	Juveniles
1953	155,602	21,747
1955	207,146	15,893
1957	176,695	15,019
1958	257,004	16,821

An explanation is needed as regards the figure for convictions in the year 1958.

In 1958 an intensified effort on the part of judicial agencies against business crimes and hoodlums contributed much to the increase in the number of convictions. In addition, the courts were intensively active in processing a few thousand cases left over from preceding years. Cancellation of the requirement of justifying each sentence by written opinion, effective since March 1958, has contributed significantly to the increased number of processed cases.

Despite the drawbacks mentioned, it does appear that in the comparison of data, the crime rate of the postwar period deviates from the level shown by Maly Rocznik Statystyczny [Shorter Statistical Yearbook] for the prewar period.

The cited data give, however, only a very general picture of differences in crime rates which can be determined on the basis of court sentences. In order to approach the truth, it is necessary to analyze at least some of the main groups of crimes.

Economic offenses

The above heading is not precise when prewar and postwar periods are compared. It seems that common characteristics of such crimes in the two periods are acts of the perpetrator to obtain profit and material gain.

Let us begin with a comparison of court convictions pertaining to thefts of private property (Article 257 of the Criminal Code).

Year	1932	1933	1934	1937	1948	1955	1957	1958
	172,061*)	171,900	180,103	127,571	44,218	20,211	17,034	22,078

*) Data for the years 1932 and 1933 include only adult convictions.

Withholding comment on the obvious changes which took place in private-property offenses, let us dwell for a moment on further data pertaining to this group (the convictions pertain to adults):

Type of offense	Year: 1937	1957	1958
Appropriation and embezzlement	9,419	808	[illegible]
Imposture	6,589	1,215	1,782
Fraud	22,220	780	3,045
Robbery	1,412	775	839
Concealment	21,070	3,598	5,254

Let us also cite general figures pertaining to property convictions. In the year 1937, 132,213 convictions were recorded; in 1957, 27,279 convictions; and in 1958, 37,136 convictions.*)

*)It should be noted that our statistical data pertain only to convictions for crimes against private property, while among the convictions of the prewar period there may also be convictions for theft or appropriation of property belonging to state institutions.

From the cited examples the conclusion is drawn that offenses concerning private property have decreased in People's Poland several times (from 3 to 5 times).

If we consider also that in 1937 there were 472,518 reported cases of property thefts, then we get a full picture of the phenomenon.

*)Professor Dr. P. Horoszowski, in his study Kryminologia--Wybrane Zagadnienia [Criminology: Selected Problems], Warsaw, 1958, cites 472,987 cases of reported theft in 1935 and 478,070 such cases in 1936.

In People's Poland the changes for the better which have occurred in the living conditions of the people, and the application by our judiciary agencies of more severe prosecution of offenses against private property, are inherent in these basic changes.

At the same time, a new form of property, namely, social property, has evolved and developed in our country. The theory that prewar thieves of private property have now switched to social property is generally false. Such a thesis has not been supported by court records. Nevertheless, one fact, among others, is that as a result of inadequate protection of social property, conditions have existed for the appropriation of such property. Let us look at this phenomenon in the light of court convictions.

Year	1953	1954	1955	1957	1958
Decree of 4 March 1953 on improving the protection of social property	3,499	12,254	17,459	20,346	32,723
Decree of 4 March 1953 on protecting social property against petty theft	12,576	31,200	32,282	21,285	32,112
Total convictions for appropriation of social property	16,075	43,454	49,741	41,631	64,835

Regarding the fact that the number of court convictions as shown in the preliminary statistical data for the year 1959 will be lower than for 1958, it can be said that the measures recently undertaken against dishonest persons convicted of stealing property, as well as new and severe penal sanctions and measures aimed at depriving the perpetrator of illegal gain by means of a compulsory fine or requiring total forfeiture as a necessary condition of suspension of penalty, led to the decrease of offenses against social property.

However, independently of this, one cannot overlook the fact that even if we add the figures on social and private property convictions, the figures deviate considerably from those of property convictions in the period between the two wars.

Data pertaining to offenses linked with foreign exchange are also interesting: in 1937 there were 4,465 persons convicted; in 1955, 3,335 persons; and in 1958, 303 persons.

Essential changes -- but this time in the other direction -- have occurred in court convictions for white-collar crimes.

In the period between the two wars, on the basis of Article 286 of the Penal Code, the main article for this group of regulations, only those persons were convicted who violated their privileges or neglected their duty as regards implementing state powers in the narrow sense and not pertaining to decisions in the economic matters of the various enterprises.

In 1937 only 1,228 persons were convicted on the basis of Article 286 of the Penal Code.

But in People's Poland this regulation has received a completely different interpretation. Already in 1946 new laws significantly broadened the concept of the public official. Later on, this law was widely applied as an instrument in fighting shortages and various types of mismanagement and waste of social property. This is demonstrated in the statistics of court convictions:

Year	1953	1955	1957	1958
	6,723	13,682	5,571	9,959

In this case we observe a significant increase in convictions, but we also understand the causes of the phenomenon. Entrusting the management of social property to the people requires, among other things, the application of compulsion in order to form the proper attitude toward social property. Naturally compulsion is here applied only as a last resort and not the main one; yet, as may be deduced from the data, it is unfortunately applied quite often.

Hoodlum-type offenses

The above very general heading covers mainly offenses against life and health and offenses against authorities and officials.*)

*) I discussed this problem in detail in the article "Hoodlum Offenses in the Light of Offense Statistics," Nowe Prawo, No. 4, 1957.

Type of offenses	Number of convicted persons in the years: 1937	1955	1958
Very serious and lesser bodily injuries (Articles 235 and 236 of the Penal Code)	6,855	2,518	3,275
Breach of the peace or use of a forbidden weapons (Articles 240 and 241 of the Penal Code)	15,942	7,420	9,374
Minor bodily injuries (Article 237 of the Penal Code)	14,873	10,128	12,680
Assault (Article 239 of the Penal Code)	14,731	11,139	13,949
Assault upon an official and resisting authority (Articles 129, 131, and 133 of the Penal Code)	11,306	7,806	6,635
Abuse of authority and of officials (Articles 127, 128, and 132 of the Penal Code)	13,651	5,984	9,226
Total	77,358	44,995	53,139

The cited data on persons convicted by the courts in People's Poland indicate that also in this group of offenses the figures differ from those of the period between the two wars.

It is characteristic that the number of convictions in 1958 equals the number of convictions during the period between the two wars for offenses privately prosecuted. This is related to the fact that in recent years there has been in our country an increase in the total number of private suits. For example, while in the year 1953 there were 123,395 people tried as a result of private prosecution, of whom 28,084 were convicted, in the year 1958 there were 192,862 persons tried as a result of private prosecution, of whom 57,307 were convicted and given various penalties. If we now turn to data for the period between the two wars, we find that in the year 1937 only 48,695 persons were convicted after private prosecution, or almost 9,000 fewer than in 1958.

Among the figures in the last table, those pertaining to offenses defined as assault on an official and resisting authority (mainly Article 133 of the Penal Code) require comment. This is the only one of the offenses for which the number of convictions decreased in comparison with 1955. There is a desirable trend apparent in combatting offenses of the hoodlum type.

It is worthwhile to point out, although this question would require sociological investigation, that in May 1958, in the familiar law relating to criminal responsibility for hoodlum acts, according to Article 133 of the Penal Code the minimum penalty was raised from 6 months to one year in jail.

Let us now look at data pertaining to homicide, which was considered to be a crime irrespective of the sociopolitical order, as propounded also in our country a few years ago.

Here are data pertaining to court convictions on the basis of Article 225 of the Penal Code (homicide).

Year:	1933	1934	1937	1953	1955	1957	1958
	1,320	1,156	1,306	362	350	236	360

The difference in the number of court convictions is here very apparent. Until now, motives and other circumstances pertaining to homicide have not been investigated in detail. But in the light of these data, it is difficult to believe that the causes of such a significant decrease in homicide bear no relation to the changes which have taken place in our country.

Data pertaining to infanticide (Article 226 of the Penal Code) shed further light on the problem of homicide. In this case we have only the data reported to the police and our citizens' militia, because statistical yearbooks do not show figures pertaining to infanticide, in the category of court convictions. We have computed the following Table:

Year	1935	1938	1955	1957	1958
	932	614	88	87	75

Despite the fact that the number of reported offenses is relatively small, the cited data show particularly clearly the changes for the better which have occurred in People's Poland.

The basic cause of the significant decrease in such infamous crimes as infanticide stems from the fundamental change in the social and financial status of women. In contrast to the situation existing in bourgeois Poland, People's Poland has secured for woman wider access to employment, learning, and leisure. The spirit of our country today regarding the problems of maternity; child education; the wide network of nurseries, kindergartens, schools, and other educational establishments -- all these combined could not help but influence the situation as regards this type of crime.

Concerning the problems of children and their care, it is worthwhile to point out that the number of court convictions demonstrates the penal responsibility shown as regards offenses against care and protection, and particularly for avoiding the payment of alimony (Article 201 of the Penal Code).

With respect to care of the child, the last-mentioned law has undergone significant expansion as applied in our courts. Our present administration of justice, in contrast to the period between the two wars, rigorously enforces alimony payments.

This problem, as reflected in figures, gives the following picture:

General data on convictions for care and protection offenses:

Year 1934 -- 682 persons.

1957 -- 5,549 persons (of whom 5,287 were convicted on the basis of Article 201 of the Penal Code).

1958 -- 5,733 persons (of whom 5,470 were convicted on the basis of Article 201 of the Penal Code).

These data indicate a significant increase in convictions for such offenses. But these figures are a result also of expanded protective regulations regarding the care of children.

In completing this part of the paper, let us dwell for a moment on the group "offenses against morals." Here are data pertaining to that group of offenses:

Type of offense	Year:	1937	1955	1957	1958
Total convictions for moral offenses of which:		1,489	1,009	713	1,062
a) Rape (Article 204 of the Penal Code)		388	227	217	281
b) Procuring and the like (Articles 208-210 of the Penal Code)*		252	41**)	63	123

*) In 1934 there were 328 persons convicted on the basis of Articles 208-210.
**) Data cover only convictions on the basis of Articles 208 and 209.

From the cited figures one may conclude that the changes are for the better in this area. Such conclusions may be drawn from the number of convictions by the courts. However, we still have much to accomplish in this field.

In the foregoing analysis we have not dealt with offenses against the state. This is a problem requiring a separate study. It should, however, be mentioned that in the period between the two wars so-called anti-state offenses were very numerous, dut to the policy of the bourgeois state. In People's Poland, offenses against the state were more numerous in the early years but have become a rare phenomenon in recent years, the number of convictions for this type of offense being very small.

What general conclusions may be drawn from this large number of figures characterizing the structure of crime in our country?

Despite the fact that the crime rate still shows high figures, that increased effort on the part of judiciary agencies is needed to combat many offenses, and that further intensification in the public of a spirit of condemnation of offenses is necessary, the cited figures on court convictions inspire a certain optimism.

It is clear that, contrary to certain opinions maintaining an increase in offenses in People's Poland, a definite decrease in relation to the period between the two wars is observable.

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ACADEMIC EFFICIENCY AND ACHIEVEMENTS OF STUDENTS IN POLISH HIGHER SCHOOLS

[Following is a translation of excerpts from the article "The Efficiency of Studies" by Janusz Tymowski in the Polish Zycie Szkoly Wyzszej (Life of the Higher School), Vol. VIII, No. 2, February 1960, Warsaw, pages 21-31.]

Simultaneously with the Six-Year Plan studies, the new term "efficiency of studies" appeared in our country. This term embraces the percentage of students who have received degrees, as well as the duration of their studies.

In the prewar period this problem did not arouse great interest. The problem of studies was treated as a private matter. Consequently an extended period of studies or the necessity for postponing or interrupting studies, regardless of whether such were caused by financial difficulties, health, or abilities below the desired level, were also matters of private concern.

The vegetating national economy did not experience any lack of highly qualified personnel. Rather there was a surplus of them, especially in Little Poland [Malopolska]. Factories in Stalowa Wola could fill clerical positions in factories with graduates from higher schools; secretaries of factory departments had diplomas from two departments of studies.

A radical change took place after the war. The vast planned development of the Soviet Union's economy and the introduction of certain elements of planning -- even in capitalist countries -- have prompted consideration of the problem of students' efficiency as one of the basic elements in elaborating plans for supplying the demand for personnel having a higher education.

In Poland, when initially estimating the number of graduates of technical studies, assuming a 3-4 year period of studies, it was assumed duration of studies would be equal to the prescribed one. Neither assumption proved accurate, and from the moment of the introduction of uniform studies extending over a period of 5 or 5 1/5 years, and with the new regulations prescribing the termination of rigid examinstions and of crediting a complete year of studies, the earlier estimate was not realized.

Because of the importance of indices of efficiency in calculating the required number of engineers and in planning the development of higher education, it was necessary to calculate:

a) the actual percentage of students completing studies in the various departments;

b) the actual duration of studies;

c) drop-outs for each year of studies.

Index a) is necessary for determining the number of students recruited for the first year of studies, indices b) and c) are used for calculating the total number of students.

An investigation was conducted in the mechanical engineering departments of all technical schools, three construction departments, three chemical engineering departments, four departments of the humanities in universities, two departments of philology in higher schools of education, three departments of agriculture, four departments of medicine, four schools of art, and one department of economics.

The method consisted in selecting the names of 100 students who commenced studies after the regulation on uniform studies was introduced, that is, as a rule, in the academic year 1954-55; and in following the course of studies of these students up to the time of the survey, that is, to the end of the academic year 1958-59.

The selection of students' names was done in such a way that the entire enrolled group was represented. For example, in the case of an enrollment of 200 students, every second name was selected; in the case of an enrollment of 150 students, the first two of every three names were selected; and so forth. In all, the course of studies of 4,690 students was surveyed.

With a few exceptions, in all the departments under survey the students have not yet taken comprehensive examinations, and because of this, the investigation will have to be continued. However, a sufficiently clear picture of the percentage of drop-outs has been obtained.

The percentage of students completing studies is sufficiently characteristic for particular departments of studies and amounts to: 1) 86% in departments of the humanities in higher schools of education, 2) 85% in medical departments in the academies of medicine, 3) 83% in schools of art, 4) 75% in departments of mathematics and physics in universities, 5) 75% in the departments of the humanities in universities, 6) 61.8% in polytechnical departments (excluding departments of mechanical engineering) in schools of engineering, 7) 60.4% in departments of mathematics and physics in the higher schools of education, 8) 57% in evening schools of engineering, 9) 53.6% in departments of mechanical engineering in schools of engineering, and 10) 44% in departments of agriculture and forestry.

The index of completion of studies is unfavorable for all departments in technical schools except for the departments of mining (83%) and construction (76-79%). It is poor for departments of mechanical engineering, and catastrophic for agricultural schools. To a large extent this is due to careless recruitment and abandonment of studies by women.

The percentage of students who transfer from their department of studies is relatively small and fluctuates between 3% and 7%, the higher percentage occurring in the more difficult departments, that is, departments of mathematics and physics in universities and departments of mechanical engineering in polytechnical schools. These transfers generally cease with the third year of studies, and transfers occurring

during the later semesters are rather changes of school than changes of department. It is characteristic that they virtually do not occur at all in Warsaw and are frequent in Wroclaw (22% transfers in the department of mechanical engineering), in Gliwice (11% in the department of mechanical engineering), in Szczecin (9% in the department of chemical engineering), and in Gdansk (11% in the department of chemical engineering).

The actual duration of studies could not be determined in an absolutely precise way, because the majority of the students taken up by the survey have not yet taken the comprehensive examinations. In connection with this, only the indices of intermediate progress in studies were calculated as the weighted mean of semesters accredited to the student.

For example, after 10 semesters of studies, the following have been accredited: 10 semesters to 53 students, 8 semesters to 51 students, and 6 semesters to 8 students.

$$\text{Index} = \frac{10 \times 53 + 8 \times 51 + 6 \times 8}{112} = 8.8$$

or a mean lag of 1.2 semesters per student.

Such calculated indices of progress in studies reveal the following: 0.906 for mechanical engineering departments, 0.917 for other departments of polytechnical schools, 0.945 for departments of the humanities, 0.940 for departments of mathematics and physics, 0.942 for departments of agriculture, 0.995 for art departments, and 0.945 for departments of medicine.

Actually, this index illustrates a lack only in relation to the time for which the topic for the diploma dissertation is assigned. At the present time, especially in technical schools and in the departments of exact sciences, a clear divergence exists between the time estimated for preparation of the diploma dissertation or master's thesis and the period of time actually taken.

To a certain extent, some objective difficulties contribute to this lag, e.g., the requirement as to the length of the dissertation and difficulties in obtaining materials and equipment for experiments. For the major part, however, the difficulties are subjective ones: mainly employment during the more advanced semesters and lack of sufficient incentives for completing studies.

In technical schools the majority of students working on diploma theses are employed without the consent of the dean.

Interesting conclusions may be drawn from an analysis of the progress of studies in relation to the grades obtained in the entrance examinations. Investigations along these lines were conducted using 400 students of the Warsaw Polytechnic and 100 students in each of the following departments: communications, chemical engineering, mechanical engineering, construction, and mechanical technology.

Out of 100 students who obtained an average grade of 3.0 in mathematics and physics in the entrance examination, 57.5% dropped out; of those who obtained a grade of 3.5, 36.9% dropped out; of those with a grade of 4.0, 31.1% dropped out; of those with 4.5, 18.5% dropped out; and of those with 5.0, 14.2% dropped out.

It is clear, then, that candidates who received grade 3, the so-called "state grade," in the entrance examinations, were insufficiently prepared for higher studies, and these candidates form the majority of the accepted students.

The choice of candidates in selecting a department for themselves is characterized by their consideration of the keen competition they will encounter in the entrance examinations. This is revealed in the percentage of "very good" and "good" grades received in the entrance examination in mathematics and physics by candidates in the three departments of the Warsaw Polytechnic: communications, one of the most popular departments; mechanical technology, of intermediate popularity; and transportation, generally not popular among youths. Also, applications to take entrance examinations in the department of transportation come from a relatively high percentage of candidates possessing general education certificates of the old type and who had previously applied for admittance to other departments.

Experience shows that candidates possessing general education certificates of the old type form a group of residual students who receive lower grades than the more recent graduates of secondary schools; and that the grades are lower, the earlier the receipt of the general education certificate.

Attention is drawn to the significantly lower grades in technical schools as revealed in the entrance-examination grades. This is illustrated in Table 3, showing the percentage of candidates who achieved satisfactory entrance examination results.

Table 3. Percentage of Students Who Achieved Satisfactory Entrance Examination Results in 1959

Department	Graduates of general education schools	Graduates of technical schools
Transportation	76.6	35.5
Mechanical technology	84.9	61.2
Communication	78.9	40.0

Such a proportion has been maintained without great changes during the entire period. It should improve in 1960, however, when graduates of 5-year technical schools take their entrance examinations.

On the other hand, students who graduated from technical schools and passed the entrance examinations during their studies, do not demonstrate slower progress in their studies. Graduates of general education lyceums sustain a 37.8 drop-out level, while those from technical schools have a drop-out level of 38.0%.

On the basis of the previously-cited data, the following conclusions may be drawn:

1. To reduce the number of drop-outs during the course of studies, raising the entrance examination requirements is necessary. A significant proportion of so-called satisfactory grades today are, properly speaking, unsatisfactory grades.

2. As for studies in agriculture, a careful approach should be adopted towards candidates from cities and especially those from Warsaw. Such students fail either to complete their studies, or, after completion, to seek employment in agriculture.

3. It would be desirable to introduce an examination which would disclose information about the general intelligence of the candidate and his interests. The most useful form would be a written examination on a certain descriptive topic connected with the intended type of studies.

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